

Claim 2 stands rejected under 35 U.S.C. § 102(e) as being unpatentable by U.S. Patent No. 6,291,259 to *Chun et al.* Claims 3, 4, 5, 8, and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Chun et al.* in view of U.S. Patent No. 6,235,552 to *Kwon et al.* Claim 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Chun et al.* in view of *Kwon et al.* and U.S. Patent No. 6,057,594 to *Chia et al.* Claim 7 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Chun et al.* in view of *Kwon et al.* and U.S. Patent No. 6,278,171 to *Arndt et al.* Claim 10 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Chun et al.* in view of *Kwon et al.* and U.S. Patent No. 6,268,642 to *Hsuan et al.* For at least the reasons set forth below, Applicants believe that claims 2-10 are allowable. Accordingly, Applicants request reconsideration of the pending claims 2-10.

Independent claim 2 stands rejected under 35 U.S.C. § 102(e) as being anticipated by *Chun et al.* Applicant respectfully traverses this rejection, because *Chun et al.* does not teach every element of independent claim 2. Claim 2 recites a combination of features including a first metal pattern formed on upper surfaces of the plurality of chip pads, a second metal pattern having an irregular shape and formed on an upper surface of the first metal pattern, and an external terminal electrically connected to the second metal pattern.

In contrast to the claimed invention as a whole, *Chun et al.* shows in Figures 2, 3, 5G, and 5H chip pads 6 formed on an upper surface of a semiconductor chip 1. Middle portions 4b of metal traces, which transmit electrical signals, are connected with upper surfaces of the chip pads 6. Second ends 4c of the metal traces are connected with upper surfaces of metal patterns 26 formed in the supporting frame 25. Conductive balls 8a,

which serve as output terminals, are attached to exposed portions of first ends 4a of the metal traces. Electrical signals which are output by the semiconductor chip 1 through the chip pads 6 can be externally transmitted over the output terminals, *i.e.*, the conductive balls 8a, connected with the first ends 4a of the metal traces. As such, *Chun et al.* does not teach at least a second metal pattern formed on an upper surface of the first metal pattern, which is formed on upper surfaces of the plurality of chip pads as recited in claim 2. As *Chun et al.* shows in Figures 2, 3, 5G, and 5H and as described in column 3, lines 20-37, and column 4, lines 42-60 the middle portions 4b of the metal traces are connected to upper surfaces of the chip pads 6. *Chun et al.* does not teach a second metal pattern formed on an upper surface of the first metal pattern as required by claim 2. Thus, *Chun et al.* does not teach every element of claim 2. Accordingly, claim 2 is patentable over *Chun et al.*

Accordingly, independent claim 2 is in a condition for allowance. Each of remaining claims 3-10 depend ultimately from independent claim 2. In rejecting claims 3-10 under 35 U.S.C. § 103(a), the Office relies on *Chun et al.* for alleged disclosure of each of the elements recited in claim 2 and incorporated in claims 3-10. However, as discussed above, *Chun et al.* fails to disclose all of the elements of claim 2. Therefore, the Office fails to set forth a *prima facie* case of obviousness as to claims 3-10. Thus, claims 3-10 are allowable at least for that reason. Applicants therefore respectfully request that the rejection to claim 2 under 35 U.S.C. § 102(e) and that the rejection to claims 3-10 under 35 U.S.C. § 103(a) be withdrawn.

**CONCLUSION**

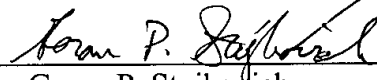
In view of the foregoing amendments and remarks, Applicants respectfully request the timely allowance of pending claims 2-10.

Applicants respectfully invite the Examiner to contact the undersigned by telephone if any outstanding issues remain unresolved.

**EXCEPT** for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0310. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

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